

Amendment
Application No. 10/814,807
Attorney Docket No. 042320

REMARKS

Claims 1-5 are pending in this application, of which claims 1 and 3 have been amended.

Claims 4 and 5 have been withdrawn from further consideration. No new claims have been added.

(1) Claims 1-3 were rejected under 35 U.S.C. §103(a) as being unpatentable over Nowobilski et al. (U.S. Patent No. 4,726,974) in view of Rusek Jr. et al. (U.S. Patent No. 5,591,505).

The Examiner admits that Nowobilski et al. fail to disclose the claimed binder amount in the range of 0.5 to 1.5wt%, but tries to combine Nowobilski et al. with Rusek Jr. et al. who teach about 0.1% to about 7% by weight binder based on the weight of the glass in the insulation product (col. 5, lines 23-34).

First, claim 1 has been amended to recite a “resin binder,” which is supported at page 8, lines 14-22, and claim 3 has been amended to delete silica alumina. Rusek Jr. et al. merely teach inorganic binder materials, and do not disclose any resin binder. Rather, Rusek Jr. et al. teach away from using organic binder materials (col. 1, lines 24-60). For example, Rusek Jr. et al. teach that “*organic materials are not suitable for all insulation applications* (col. 1, lines 24-25),” and that “*inorganic binder material are desired for many applications* (col. 1, lines 39-40),” and that *(a)ccordingly, the need remains for an insulation product having an inorganic*

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binder material(col. 1, lines 57-58). In the Summary of the Invention, Rusek Jr. et al. teach that the invention is directed to an insulation product using an inorganic thermoplastic binder (col. 1, line 64 to col. 2, line 8). The teaching of about 0.1% to about 7% by weight binder, where the Examiner relies on, is the amount of the inorganic binder (col. 5, lines 23-34). Thus, Nowobilski et al. cannot be combined with Rusek Jr. et al. in view of the teaching away.

Second, unexpected results can be found in the coating amount of the resin binder, i.e., 0.5 to 1.5wt%. In the Examples which have the resin binder coating at a coating amount of 0.5, 1.0 and 1.5 wt%, the initial thermal conductivity is the same as, or close to, that of the Example which does not have the resin binder coating. In addition, such an excellent thermal conductivity could have been maintained for 50 days. Further, the thermal conductivity and its maintenance were poor in the Examples with the binder in a coating amount of 3.0 and 10.0 wt%. Please see Table 1 and page 16, lines 17 of the specification. Because the claimed coating amount of the resin binder shows unexpected results, claim 1 is not obvious over the references.

(3) In view of the aforementioned amendments and accompanying remarks, Applicants submit that the claims, as herein amended, are in condition for allowance. Applicants request such action at an early date. If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned representative at the telephone number indicated below to arrange for an interview to expedite the disposition of this case. If this paper is not timely filed, Applicants respectfully petition for

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an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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